

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 18 APR 2006

WIPO

PCT

PCT

To:
HARRY F. SMITH
HARRINGTON & SMITH, LLP
4 RESEARCH DRIVE
SHELTON, CT 06484-6212

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year)

12 APR 2006

Applicant's or agent's file reference

873.0168.U1(WO)

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US05/01428

International filing date (day/month/year)

14 January 2005 (14.01.2005)

Priority date (day/month/year)

15 January 2004 (15.01.2004)

International Patent Classification (IPC) or both national classification and IPC

IPC: H04M 1/66; H04M 1/68; H04M 3/00

USPC: 455/410

Applicant

NOKIA CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Date of completion of this
opinion

23 February 2006 (23.02.2006)

Authorized officer

Ayaz R Sheikh

Telephone No. 703-305-0900

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US05/01428

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/01428

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 4, 10, 13, 33-35 and 39 YES

Claims 1-3, 5-9, 11, 12, 14-32, 36-38 and 40-50 NO

Inventive step (IS)

Claims NONE YES

Claims 1-50 NO

Industrial applicability (IA)

Claims 1-50 YES

Claims NONE NO

2. Citations and explanations:

Please See Continuation Sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/01428

Supplemental Box
In case the space in any of the preceding boxes is not sufficient.

V. 2. Citations and Explanations:

1. Claims 1-3, 5-9, 11, 12, 14-32, 36-38 and 40-50 lack novelty under PCT Article 33(2) as being anticipated by Ala-Laurila (Patent Number: US 6587680 A1).

As per claim 1, 24, 25, 27 - 29, 47 and 49, Ala-Laurila teaches a method performed on a first server for communicating with a mobile station in order for the mobile station to update a security-related parameter, comprising: determining that a request expressed in a first protocol has been made by a second server for updating the security-related parameter on the mobile station (Ala-Laurila: Figure 2, Column 10 Line 9 - 10 and Column 5 Line 43 - 51); and in response to determining, packaging the request in a message expressed in a second protocol and communicating the message to the mobile station (Ala-Laurila: Figure 2, Column 5 Line 30 - 36).

As per claim 2, Ala-Laurila teaches the first protocol comprises a signaling protocol and the second protocol comprises an internet protocol (Ala-Laurila: Column 2 Line 62 and Column 1 Line 63 - 64).

As per claim 3 and 32, Ala-Laurila teaches the signaling protocol further comprises an over-the-air management protocol (Ala-Laurila: Column 5 Line 46 - 51), and wherein the internet protocol further comprises an over-the-air internet protocol (Ala-Laurila: Column 1 Line 63 - 64).

As per claim 5 and 30, Ala-Laurila teaches determining that the mobile station has updated the security-related parameter, and communicating a response expressed in the second protocol to the second server, the response indicating that the mobile station has updated the security-related parameter (Ala-Laurila: Column 10 Line 10 - 66).

As per claim 6, 7 and 50, Ala-Laurila teaches the first and second protocols comprise different transport protocols; the request is further expressed in a first management protocol; and packaging further comprises packaging the request in the message, where the message is expressed in a second management protocol in addition to the second protocol (Ala-Laurila: Figure 2, Column 10 Line 9 - 10 and Column 5 Line 43 - 51).

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/01428

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

As per claim 8 - 9 and 37 - 38, Ala-Laurila teaches the security-related parameter comprises an authentication key (Ala-Laurila: Column 4 Line 38 - 39).

As per claim 11 and 41, Ala-Laurila teaches communicating at least one additional message expressed in the second protocol to the mobile station, the at least one additional message comprising at least one command defined to cause the mobile station to determine the security-related parameter (Ala-Laurila: Column 10 Line 10 - 66).

As per claim 12, 16, 20, 22 and 42, Ala-Laurila teaches communicating a first message and a second message expressed in the second protocol with the mobile station, the first message comprising a first command defined to cause the mobile station to compute a first value, and the second message comprising a second value and a second command defined to cause the mobile station to compute the security-related parameter by using the first and second values (Ala-Laurila: Figure 2 & 7).

As per claim 14 and 40, Ala-Laurila teaches receiving an additional message comprising at least one parameter, the at least one parameter indicating whether or not the mobile station supports a certain provisioning protocol (Ala-Laurila: Figure 5A).

As per claim 15, Ala-Laurila teaches in response to the at least one parameter indicating that the mobile station does support the certain provisioning protocol, performing a first collection of steps; and in response to the at least one parameter indicating that the mobile station does not support the certain provisioning protocol, performing a second collection of steps (Ala-Laurila: Figure 3).

As per claim 17 - 19, 21, 23 and 44, Ala-Laurila teaches receiving a third message expressed in the second protocol, the third message comprising an indication that the first value has been computed by the mobile station; and computing a second value further comprises computing, in response to the third message, the second value (Ala-Laurila: Figure 7).

As per claim 36, Ala-Laurila teaches the first protocol comprises a transport protocol; and the request defines a trigger to cause the mobile station to begin operations to update the security-related parameter (Ala-Laurila: Column 10 Line 10 - 66).

As per claim 43, Ala-Laurila teaches communicating a second message expressed in the first protocol to the server, the second message comprising an indication that the first value has been computed (Ala-Laurila: Figure 2 & 7).

As per claim 45 - 46 and 48, Ala-Laurila teaches one or more of performing at least one first operation and performing at least one second operation uses at least one node in a management tree to store information (Ala-Laurila: Figure 1).

2. Claims 4 and 33 - 35 lack an inventive step under PCT Article 33(3) as being obvious Ala-Laurila (Patent Number: US 6587680 A1), in view of Nakazawa et al. (Publication Number: US 2003/0069008 A1).

As per claim 4 and 33 - 35, Ala-Laurila does not teach the over-the-air management protocol comprises an IS-683 management protocol, and wherein the over-the-air internet protocol further comprises an Internet Protocol (IP)-based Over-The-Air (IOTA) Device Management protocol.

Nakazawa teaches the over-the-air management protocol comprises an IS-683 management protocol, and wherein the over-the-air internet protocol further comprises an Internet Protocol (IP)-based Over-The-Air (IOTA) Device Management protocol (Nakazawa: Para [0006]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Nakazawa within the system of Ala-Laurila because Nakazawa teaches downloading system information on a mobile communication system (Nakazawa: Para [0013]).

3. Claims 10, 13 and 39 lack an inventive step under PCT Article 33(3) as being obvious Ala-Laurila (Patent Number: US 6587680 A1), in view of Hsu et al. (Patent Number: US 6587684 B1).

As per claim 10 and 39, Ala-Laurila does not teach the security-related parameter comprises one of an authentication key or a security key; and the security-related parameter is defined by a Code-Division Multiple Access (CDMA) standard.

Hsu teaches the security-related parameter comprises one of an authentication key or a security key; and the security-related parameter is defined by a Code-Division Multiple Access (CDMA) standard (Hsu: Column 2 Line 8 - 30).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Hsu within the system of Ala-Laurila because Hsu teaches downloading software to portable wireless digital telephones (Hsu: Column 1 Line 8 - 10).

As per claim 13, Ala-Laurila does not teach the message is a first message; and the method further comprises: receiving a second message comprising an indication of a version of the security-related parameter, the second message expressed in the second protocol; and communicating a third message, expressed in the first protocol and comprising the indication, to the second server.

Hsu teaches the message is a first message; and the method further comprises: receiving a second message comprising an indication of a version of the security-related parameter, the second message expressed in the second protocol; and communicating a third

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/01428

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

message, expressed in the first protocol and comprising the indication, to the second server (Hsu: Column 19 Line 47 - 49).
Same rationale of combination applies herein as above in rejecting the claim 10.

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 18 APR 2006

WIPO PCT

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:
HARRY F. SMITH
HARRINGTON & SMITH, LLP
4 RESEARCH DRIVE
SHELTON, CT 06484-6212

Date of mailing
(day/month/year)

12 APR 2006

Applicant's or agent's file reference

873.0168.U1(WO)

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US05/01428

International filing date (day/month/year)

14 January 2005 (14.01.2005)

Priority date (day/month/year)

15 January 2004 (15.01.2004)

International Patent Classification (IPC) or both national classification and IPC

IPC: H04M 1/66; H04M 1/68; H04M 3/00

USPC: 455/410

Applicant

NOKIA CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Date of completion of this
opinion

23 February 2006 (23.02.2006)

Authorized officer

Ayaz R Sheikh

Telephone No. 703-305-0900

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US05/01428

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/01428

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>4, 10, 13, 33-35 and 39</u>	YES
	Claims <u>1-3, 5-9, 11, 12, 14-32, 36-38 and 40-50</u>	NO
Inventive step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-50</u>	NO
Industrial applicability (IA)	Claims <u>1-50</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Please See Continuation Sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/01428

Supplemental Box
In case the space in any of the preceding boxes is not sufficient.

V. 2. Citations and Explanations:

1. Claims 1-3, 5-9, 11, 12, 14-32, 36-38 and 40-50 lack novelty under PCT Article 33(2) as being anticipated by Ala-Laurila (Patent Number: US 6587680 A1).

As per claim 1, 24, 25, 27 - 29, 47 and 49, Ala-Laurila teaches a method performed on a first server for communicating with a mobile station in order for the mobile station to update a security-related parameter, comprising: determining that a request expressed in a first protocol has been made by a second server for updating the security-related parameter on the mobile station (Ala-Laurila: Figure 2, Column 10 Line 9 - 10 and Column 5 Line 43 - 51); and in response to determining, packaging the request in a message expressed in a second protocol and communicating the message to the mobile station (Ala-Laurila: Figure 2, Column 5 Line 30 - 36).

As per claim 2, Ala-Laurila teaches the first protocol comprises a signaling protocol and the second protocol comprises an internet protocol (Ala-Laurila: Column 2 Line 62 and Column 1 Line 63 - 64).

As per claim 3 and 32, Ala-Laurila teaches the signaling protocol further comprises an over-the-air management protocol (Ala-Laurila: Column 5 Line 46 - 51), and wherein the internet protocol further comprises an over-the-air internet protocol (Ala-Laurila: Column 1 Line 63 - 64).

As per claim 5 and 30, Ala-Laurila teaches determining that the mobile station has updated the security-related parameter, and communicating a response expressed in the second protocol to the second server, the response indicating that the mobile station has updated the security-related parameter (Ala-Laurila: Column 10 Line 10 - 66).

As per claim 6, 7 and 50, Ala-Laurila teaches the first and second protocols comprise different transport protocols; the request is further expressed in a first management protocol; and packaging further comprises packaging the request in the message, where the message is expressed in a second management protocol in addition to the second protocol (Ala-Laurila: Figure 2, Column 10 Line 9 - 10 and Column 5 Line 43 - 51).

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/01428

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

As per claim 8 - 9 and 37 - 38, Ala-Laurila teaches the security-related parameter comprises an authentication key (Ala-Laurila: Column 4 Line 38 - 39).

As per claim 11 and 41, Ala-Laurila teaches communicating at least one additional message expressed in the second protocol to the mobile station, the at least one additional message comprising at least one command defined to cause the mobile station to determine the security-related parameter (Ala-Laurila: Column 10 Line 10 - 66).

As per claim 12, 16, 20, 22 and 42, Ala-Laurila teaches communicating a first message and a second message expressed in the second protocol with the mobile station, the first message comprising a first command defined to cause the mobile station to compute a first value, and the second message comprising a second value and a second command defined to cause the mobile station to compute the security-related parameter by using the first and second values (Ala-Laurila: Figure 2 & 7).

As per claim 14 and 40, Ala-Laurila teaches receiving an additional message comprising at least one parameter, the at least one parameter indicating 15 whether or not the mobile station supports a certain provisioning protocol (Ala-Laurila: Figure 5A).

As per claim 15, Ala-Laurila teaches in response to the at least one parameter indicating that the mobile station does support the certain provisioning protocol, performing a first collection of steps; and in response to the at least one parameter indicating that the mobile station does not support the certain provisioning protocol, performing a second collection of steps (Ala-Laurila: Figure 3).

As per claim 17 - 19, 21, 23 and 44, Ala-Laurila teaches receiving a third message expressed in the second protocol, the third message comprising an indication that the first value has been computed by the mobile station; and computing a second value further comprises computing, in response to the third message, the second value (Ala-Laurila: Figure 7).

As per claim 36, Ala-Laurila teaches the first protocol comprises a transport protocol; and the request defines a trigger to cause the mobile station to begin operations to update the security-related parameter (Ala-Laurila: Column 10 Line 10 - 66).

As per claim 43, Ala-Laurila teaches communicating a second message expressed in the first protocol to the server, the second message comprising an indication that the first value has been computed (Ala-Laurila: Figure 2 & 7).

As per claim 45 - 46 and 48, Ala-Laurila teaches one or more of performing at least one first operation and performing at least one second operation uses at least one node in a management tree to store information (Ala-Laurila: Figure 1).

2. Claims 4 and 33 - 35 lack an inventive step under PCT Article 33(3) as being obvious Ala-Laurila (Patent Number: US 6587680 A1), in view of Nakazawa et al. (Publication Number: US 2003/0069008 A1).

As per claim 4 and 33 - 35, Ala-Laurila does not teach the over-the-air management protocol comprises an IS-683 management protocol, and wherein the over-the-air internet protocol further comprises an Internet Protocol (IP)-based Over-The-Air (IOTA) Device Management protocol.

Nakazawa teaches the over-the-air management protocol comprises an IS-683 management protocol, and wherein the over-the-air internet protocol further comprises an Internet Protocol (IP)-based Over-The-Air (IOTA) Device Management protocol (Nakazawa: Para [0006]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Nakazawa within the system of Ala-Laurila because Nakazawa teaches downloading system information on a mobile communication system (Nakazawa: Para [0013]).

3. Claims 10, 13 and 39 lack an inventive step under PCT Article 33(3) as being obvious Ala-Laurila (Patent Number: US 6587680 A1), in view of Hsu et al. (Patent Number: US 6587684 B1).

As per claim 10 and 39, Ala-Laurila does not teach the security-related parameter comprises one of an authentication key or a security key; and the security-related parameter is defined by a Code-Division Multiple Access (CDMA) standard.

Hsu teaches the security-related parameter comprises one of an authentication key or a security key; and the security-related parameter is defined by a Code-Division Multiple Access (CDMA) standard (Hsu: Column 2 Line 8 - 30).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Hsu within the system of Ala-Laurila because Hsu teaches downloading software to portable wireless digital telephones (Hsu: Column 1 Line 8 - 10).

As per claim 13, Ala-Laurila does not teach the message is a first message; and the method further comprises: receiving a second message comprising an indication of a version of the security-related parameter, the second message expressed in the second protocol; and communicating a third message, expressed in the first protocol and comprising the indication, to the second server.

Hsu teaches the message is a first message; and the method further comprises: receiving a second message comprising an indication of a version of the security-related parameter, the second message expressed in the second protocol; and communicating a third

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/01428

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

message, expressed in the first protocol and comprising the indication, to the second server (Hsu: Column 19 Line 47 - 49).
Same rationale of combination applies herein as above in rejecting the claim 10.